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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,158	04/08/2004	Andrey N. Putilin	85943-0007	7052
24633	7590	06/21/2006	EXAMINER	
HOGAN & HARTSON LLP IP GROUP, COLUMBIA SQUARE 555 THIRTEENTH STREET, N.W. WASHINGTON, DC 20004			CRUZ, MAGDA	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/820,158

Applicant(s)

PUTILIN ET AL.

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 1-23 is/are allowed.
 6) ☐ Claim(s) _____ is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: element 1105 from Figure 10 and elements ΔW_{ij} and 1350 from Figure 13. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37

CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

3. The disclosure is objected to because of the following informalities: there is no description of element 1105 from Figure 10 and elements ΔW_{ij} and 1350 from Figure 13.
- Appropriate correction is required.

Allowable Subject Matter

4. Claims 1-23 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:
- a. Regarding claim 1, the prior art or record neither shows nor suggests a method for imaging a free space three dimensional perceived image that aligns at least two image projectors in a geometry so as to be able to project images off a screen and through an optic module; simultaneously calculating separate two-dimensional images for projecting by each projector, the calculated images being derived from stereopair image information regarding the object and from a pattern and a geometry; and projecting calculated images from projectors onto a screen such that they reflect off the screen and through an optic module to produces a three-dimensional image of an object to a viewer at a known location.

b. Regarding claim 12, the prior art or record neither shows nor suggests a dynamic stereoscopic image projection system containing at least two image creation units being aligned in a geometry relative to optic module, and an image creation units each containing electronically switchable displays for producing two-dimensional images; and an imaging computational device containing a processor, said device being adapted to control pixels of said switchable displays, and said device being adapted to derive a separate flat images for each display, said flat images being calculated by said device using said pattern and said geometry and electronic stereopair images of the object to create a stereoscopic image when said derived flat images are projected through said optic module.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Faris (US Patent Number 5,264,964) discloses a multi-mode stereoscopic imaging system.

Inoguchi et al. (US Patent Number 5,945,965) teach a stereoscopic image display method.

Moseley et al. (US Patent Number 5,993,004) show a stereoscopic display comprising a light source and condenser optics.

Kleinberger et al. (US Patent Number 6,252,707 B1) disclose a system for three-dimensional viewing and projection.

Eichenlaub (US Patent Number 6,533,420 B1) teaches an apparatus and method for generating and projecting autostereoscopic images.

Suyama et al. (US Patent Number 6,714,174 B2) show an optical device and three-dimensional display device.

7. This application is in condition for allowance except for the following formal matters:

a. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: element 1105 from Figure 10 and elements ΔW_{ij} and 1350 from Figure 13.

b. The disclosure is objected to because of the following informalities: there is no description of element 1105 from Figure 10 and elements ΔW_{ij} and 1350 from Figure 13.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-

2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William Perkey
Primary Examiner

Magda Cruz
Patent Examiner

June 13, 2006